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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,242	07/03/2003	Rolf Cremerius	GKNG 1159 PUS	4751

7590 11/10/2005  
Robert P. Renke  
Suite 250  
28333 Telegraph Road  
Southfield, MI 48034

EXAMINER

MAZZUCA JR, DOUGLAS

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/613,242	<b>Applicant(s)</b> CREMERIUS, ROLF	
	<b>Examiner</b> Douglas E. Mazzuca	<b>Art Unit</b> 3726	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-9, 11-20 is/are rejected.
- 7) ☒ Claim(s) 8-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 102 30 493.9.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the beveled straight edges mentioned in claims 8-9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 8 and 9 are objected to because of the following informalities:

It has been noted from remarks filed by applicant on August 14, 2003 that claims 7 and 10 have been cancelled and figures 3A, 3B, 4A, and 4B have been replaced. While the replacement drawings are consistent with the rest of the claims, claims 8 and 9 mention beveled edges, as seen in the previous drawings, yet are not shown on the new updated drawings filed on August 14, 2003.

Suggest canceling claims 8 and 9 as well to remain consistent with new drawings.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 14-17, and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Oetiker (US Patent No. 5,001,816). As to Claim 1, Oetiker discloses:

A: A method of producing metal clamping rings (**column 1 lines 11-13**).

Art Unit: 3726

B: For securing sleeves made of an elastic material (**84, column 6 lines 38-39, lines 45-47**) on components which are movable relative to one another (**column 6 lines 40-45**).

C: Producing a strip portion from plate metal (**column 5 lines 1-4, column 6 lines 21-23**).

D: The strip portion comprising strip ends (**figures 1-4**), which match and complement one another (**ends 1 and 5 in figures 1-4**). To match or to complement means to fit or join together.

E: The strip ends are delimited so as to be undercut-free in the longitudinal direction (**column 6 lines 21-26**).

F: Bending the strip portion substantially circular to form a cylindrical ring with abutting strip ends (**column 6 lines 25-30**).

G: Welding the strip ends to form a clamping ring (**column 3 lines 9-14**).

5. As to claim 2, Oetiker discloses cutting a coil or long strip band material into desired lengths (**column 6 lines 21-23**).

6. Regarding claims 3-6, Oetiker discloses cutting the strip ends to have straight edges which extend at right angles, or any angle, relative to the longitudinal direction of the strip portion (**column 6 lines 21-23**). This is best illustrated in figure 5. Edge of 9 on right side is a straight edge perpendicular to edge of band 1 and 5.

7. As to claims 14-17, Oetiker discloses welding the strip ends together using point welding (**column 4 line 7**).

8. All the components mentioned in claim 18 have been addressed above except:

- A: Positioning the clamping ring on to an elastic sleeve which is positioned on one of the components (**column 6 lines 48-50**).
- B: Radially upsetting the clamping ring (**column 6 lines 57-60**), with the clamping ring being permanently plastically deformed and with the sleeve being permanently elastically deformed (**column 6 lines 60-66**).
9. Regarding claim 19, Oetiker discloses the step of mechanically plastically upsetting the circular band using an annular tool (**column 6 lines 56-65**).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oetiker (US Patent No. 5,001,816) in view of Buedenbender (EP Patent No. 288884B). Oetiker discloses cutting the strip ends, yet fails to disclose the ends being cut with beveled straight edges. Buedenbender teaches a beveling process (**figure 1**) on the edges of a strip to form a straight edge (**figure 6**). The edges are straight in a perfect line and are not curved. The purpose of beveling adjoining edges is to help when securing both sides together. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Oetiker with

Art Unit: 3726

the beveling process of Buedenbender in order to help in the combining two adjoining edges.

12. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oetiker (US Patent No. 5,001,816) in view of Buedenbender (EP Patent No. 288884B). Oetiker discloses a welding process (**column 3 lines 12-14**) along the strip ends, but fails to disclose a laser welding, plasma welding, or electron-beam welding process. Buedenbender teaches a laser welding process for joining two strip ends together (**Abstract lines 9-11, figures 1 and 2**). The purpose of using a laser welder is not only to join the two sides of the strip together, but to do so without weakening the material in the weld region with excessive heat. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Oetiker with the laser welding process of Buedenbender in order to not only join the two strip edges together, but to do so in a less destructive way by not introducing excessive heat.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oetiker (US Patent No. 5,001,816) in view of Steingroever (US Patent No. 5,813,264). Oetiker discloses the process of plastically upsetting the clamping ring around the sleeve, yet fails to disclose upsetting by electro-magnetic impulse. Steingroever teaches an electro-magnetic impulse used to radially upset a metal piece around another object (**column 3 lines 66-67-column 4 lines 1-7, also seen in figures 7-9**). A reason for using an electro-magnetic pulse to collapse the ring around the sleeve is to create an even and smooth deformation where no mechanical work is required. Therefore, it

Art Unit: 3726

would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Oetiker with the electro-magnetic deformation process of Steingroever in order to evenly deform the clamping ring around the sleeve.

**Conclusion**

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 2,896,978.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas E. Mazzuca whose telephone number is (571)272-7813. The examiner can normally be reached on 7:30AM-4PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Bryant can be reached on (571)272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Mazzuca  
11/3/05

DEM

  
MARC JIMENEZ  
PRIMARY EXAMINER  
11/7/05